REMARKS

I. General

Claims 1-23, 25-39, and 41-48 are pending in the current application and all are rejected by the Examiner in the Office Action mailed March 29, 2005 (Paper No. 20050316). Claims 1, 17, and 34 are amended by this response. The issues raised in the current Office Action are as follows:

- Claims 17 and 34 are rejected under 35 U.S.C. § 102(a) as being anticipated by PCT Printed Application WO 99/31811 (hereinafter, *Knutson*).
- Claims 1-4, 10-16, 46, and 48 are rejected under 35 U.S.C. § 103(a) as being obvious over PCT Printed Application WO 99/34541 (hereinafter, *Beveridge*) in view of *Knutson*.
- Claim 5 is rejected under 35 U.S.C. § 103(a) as being obvious over *Beveridge* in view of *Knutson* in further view of U.S. Patent no. 5,920,233 (hereinafter, *Denny*).
- Claims 6-9 are rejected under 35 U.S.C. § 103(a) as being obvious over Beveridge in view of Knutson in further view of U.S. Patent no. 5,847,612 (hereinafter, Birleson).
- Claim 47 is rejected under 35 U.S.C. § 103(a) as being obvious over
 Beveridge in view of Knutson in further view of U.S. Patent no. 6,272,209
 (hereinafter, Bridger).
- Claims 17-19, 21-23, 25, 26, 32-36, and 38-39 are rejected under 35 U.S.C.
 § 103(a) as being obvious over U.S. Patent no. 6,546,016 (hereinafter, Gerszberg) in view of Knutson.
- Claims 20 and 37 are rejected under 35 U.S.C. § 103 as being obvious over *Gerszberg* in view of *Knutson* in further view of *Bridger*.

• Claims 27 and 41 are rejected under 35 U.S.C. § 103 as being obvious over *Gerszberg* in view of *Knutson* in further view of *Denny*.

• Claims 28-31 and 42-45 are rejected under 35 U.S.C. § 103 as being obvious over *Gerszberg* in view of *Knutson* in further view of *Birleson*.

Applicant respectfully requests withdrawal of the rejections in light of the arguments herein.

II. Applicant's Record Under M.P.E.P. § 713.04 of Interview with the Examiner

Applicant's attorney appreciates the Examiners' time and consideration in conducting the telephone interview of June 28, 2005. Applicant respectfully submits the following record of the telephone interview of June 28, 2005 under M.P.E.P. § 713.04.

The following persons participated in the interview: Examiner Ahmed Elallam and Applicant's Attorney Thomas Kelton (reg# 54,214).

Claims 1 and 46 were discussed with reference made to the cited art. An agreement was reached that the term "CW RF signal" as it appears, for example, in claim 46 does not read on the cited power signal. No other agreements were reached.

In view of the telephone interview of June 28, 2005, Applicant hereby presents arguments for the Examiner's consideration.

III. Claim Amendments

Claims 1, 17, and 34 are amended to recite that the acquisition time is time to lock on to a desired frequency. Support may be found at least at page 8, line 19 of the specification. Because an acquisition time is time to lock on to a desired frequency, the amendment is merely a clarifying amendment, and as such, it does not narrow the scope of the claims. Specifically, the amendment is made to address the Examiner's reading of "acquisition time" as transmit or receive time. Further, such amendment is not in response to the cited art.

IV. Claims Rejections Under 35 U.S.C. §102

On pages 3-4 of the Office Action, claims 17 and 34 are rejected under 35 U.S.C. § 102(a) as being anticipated by *Knutson*.

Claim 17 recites, in part, "wherein said acquisition time is less than one-fourth of said frame period, and wherein said frame period is equal to the time between the beginning of a first allocated time slot and the beginning of a second allocated time slot." Applicant has amended the claim to clarify that "acquisition time" is time to lock on to a desired frequency. *Knutson* does not teach, at least, the above-quoted feature of claim 17 because it does not describe any features of an acquisition time, much less teach an acquisition time that "is less than one-fourth of said frame period, and wherein said frame period is equal to the time between the beginning of a first allocated time slot and the beginning of a second allocated time slot." Accordingly, neither time slots nor the times that the *Knutson* transceivers are on are the same as the above-defined acquisition time.

Further, in the Office Action at page 3, the Examiner asserts that the epoch (item 250 of Fig. 2 of *Knutson*) is the same as the claimed frame period. The epoch is not the same as the frame recited in claim 17 because the epoch is a larger period than the time between the beginning of a first allocated time slot to the beginning of a second allocated time slot. See, for example, the passage at page 10, lines 9-16 of *Knutson*, which teaches that one particular handset may be on for two data slots and up to 24 audio slots in each epoch. Accordingly, an epoch is not the same as the claimed frame. Therefore, not only does *Knutson* fail to teach the claimed acquisition time, but *Knutson* also fails to teach the length of the claimed acquisition time.

In the Response to Arguments section of the Office Action at page 20, the Examiner states:

In addition, in TDMA mobiles are allocated at least one specific time slot in which the mobiles wake up for signal acquisition, such a wake up acquisition time is well known in the art, and *Knutson*. [sic] must have possession of the claimed "acquisition time", because that is needed for the mobile to be able to listen and receive incoming signal or signals during the allocated receiving time slot for each frame period. Such well-known feature is evidenced by Applicant statement on page 7, lines 25-27 and page 8, lines 1-13 of the specification.

First, the Office Action misconstrues the cited passage from the specification. The cited passage describes transmit and receive slots in a GSM 05.05 frame. The passage makes no reference to acquisition time, and it is believed that the Office Action cites the passage only to indicate that TDMA wireless systems have acquisition times. However, such a point is not relevant, as Knutson does not teach that any acquisition time in Knutson is "less than one-fourth of said frame period, and wherein said frame period is equal to the time between the beginning of a first allocated time slot and the beginning of a second allocated time slot," as recited by claim 17. Second, it appears that the passage from the Office Action above may imply that transmit and/or receive slots are the same as the claimed acquisition time. Once again, acquisition time is time to lock on to a desired frequency and is different that transmit and receive times. Thirdly, should the Examiner believe that an acquisition time "less than one-fourth of said frame period, and wherein said frame period is equal to the time between the beginning of a first allocated time slot and the beginning of a second allocated time slot" is inherent in systems such as the Knutson system, such a belief is wrong, as evidenced by the passage in the present application specification at page 8, line 26 through page 9, line 28, that describes several tuners with acquisition times that are longer than that claimed. Further, evidence showing such inherency is requested under M.P.E.P §2112(IV).

Thus, *Knutson* does not teach the above-recited feature of claim 17. For these reasons, Applicant respectfully asserts that claim 17 is patentable over *Knutson*, and respectfully requests removal of the 35 U.S.C. § 102(a) rejection of claim 17.

Claim 34 recites, in part, "wherein said fast acquisition time tuner is operable to lock on to said TDM RF signal in a time equal to or less than a quarter of a time period between consecutive said allocated time slots." *Knutson* does not teach, at least, the above-quoted feature of claim 34. *Knutson* does not teach how long its transceiver takes to lock on to the desired frequency during its on time. In fact, *Knutson* fails to address at all the time required to lock on to a signal, because *Knutson* simply says that handsets are "on" or "off."

In the Response to Arguments section of the Office Action at pages 20-21, the Examiner asserts that the limitation, "wherein said fast acquisition time tuner is operable to lock on to said TDM RF signal in a time equal to or less than a quarter of a time period between consecutive said allocated time slots," is equivalent to "the mobile receives signal in the allocated time slot of the frame." Such an interpretation misconstrues the claim language.

First, the claimed acquisition time is not the same as receiving a signal, because acquisition time is time to lock on to a desired frequency. Second, the TDMA epoch of *Knutson* is not the same as "a time period between consecutive allocated time slots" because one particular handset may transmit or receive for two data slots and up to 24 audio slots in each epoch of *Knutson*. See *Knutson* at page 10, lines 9-16.

Further, the Examiner asserts that it is inherent for the *Knutson* handset to lock to the received signal in the allocated time slot. Office Action at 20-21. Such an assertion is unsupported. See, for example, the passage in the present application specification at page 9, lines 15-27, that describes acquisition time as separate from transmit and receive time. Such a passage teaches that chips take time to lock onto a frequency before a receive period begins. If the *Knutson* system includes its time to lock on in the allocated time slot, as the Examiner asserts, then the *Knutson* system would miss data that was transmitted during the lock on time. Thus, it is possible that the *Knutson* system pulses on well before any receive time in order to lock on to the particular frequency. As explained before, acquisition times are not addressed in *Knutson* at all. Further, evidence and technical reasoning showing such inherency is requested under M.P.E.P §2112(IV).

Thus, *Knutson* does not teach the above-quoted feature of claim 34. Accordingly, Applicant respectfully asserts that claim 34 is patentable over *Knutson*, and respectfully requests removal of the 35 U.S.C. § 102(a) rejection of claim 34.

V. Claims Rejections Under 35 U.S.C. §103

A. Rejections over Beveridge in view of Knutson

On page 5 of the Office Action, Claims 1-4, 10-16, 46, and 48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Beveridge* in view of *Knutson*.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the applied reference. Second, there must be a reasonable expectation of success. Finally, the applied reference must teach or suggest all the claim limitations. *See* M.P.E.P.

§ 2143. Without conceding any other criteria, it is believed that the rejection does not satisfy the third criterion.

Claim 1 recites, in part, "wherein said tuner has an acquisition time of less than half of said frame period." The combination of Beveridge and Knutson does not teach or suggest, at least, the above-quoted feature of claim 1. Knutson teaches a wireless telephone system, but does not teach or suggest the above-quoted feature of claim 1, at least, because Knutson does not describe any properties of an acquisition time and, especially, does not disclose an acquisition time that is less than half of a frame period. It should be noted that Applicant has amended the claim to clarify that "acquisition time" is time to lock on to a desired frequency. In the Office Action at page 5, the Examiner asserts that data time slots in the Abstract of Knutson teach the above recited feature of claim 1. The time slots of Knutson are simply times defined by a protocol when a device is allowed to send or receive data or audio, and those times are independent of the acquisition times of tuners. See page 1, lines 23-26 of Knutson, which describe that a slot is part of a cycle (epoch) and that handsets transmit or receive data during their respective slots. Knutson does not discuss the problem of utilizing tuners with appropriate times to lock on to desired frequencies, and accordingly, does not mention or teach an acquisition time. The Office Action does not rely on Beveridge to teach or suggest the above-quoted feature of claim 1. Therefore, the combination of Knutson and Beveridge does not teach or suggest every claim limitation of claim 1. Because a combination of *Knutson* and *Beveridge* fails to teach or suggest all limitations of claim 1, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claim 1.

In the Response to Arguments section at page 21 of the Office Action, the Examiner points out that Applicant mistakenly stated that claims 15 and 16 were canceled in the last response. The Examiner is correct—claims 15 and 16 are still pending. Applicant apologizes for the confusion and thanks the Examiner for his understanding.

Claim 46 recites, in part, "receiving a TDM RF telephony signal in place of said CW RF signal." The rejection asserts that *Beveridge* teaches a CW RF signal. The rejection then asserts that *Knutson* teaches a TDMA RF telephony signal and that the combination, therefore, teaches "receiving a TDM RF telephony signal in place of said CW RF signal." The rejection does not properly assert that the combination teaches "receiving a TDM RF telephony signal in place of said CW RF signal" because merely providing two references

that each teach a different signal is not enough to teach or suggest receiving one signal in place of another. While *Beveridge* teaches switching power supplies, *Beveridge* does not teach or suggest the above-quoted feature of claim 46, at least, because *Beveridge* does not teach or suggest receiving any other signal in place of a CW RF signal. Switching power supplies is irrelevant, as there is no teaching in *Beveridge* that such power supply switching is related to the cable and voice call signals that the Examiner asserts are CW RF signals.

The Office Action at page 9 points to *Knutson* as teaching the above-quoted feature because *Knutson* teaches a system utilizing TDMA protocol. However, *Knutson* does not teach receiving a TDMA RF telephony signal in place of any other signal, much less a CW RF signal. Thus, even if the Office Action's allegation that *Knutson* teaches using TDMA protocol is true, that teaching added to the teaching of *Beveridge* does not teach or suggest "receiving a TDM RF telephony signal *in place of* said CW RF signal," (emphasis added) as claim 46 recites. Neither reference teaches or suggests receiving one signal in place of another, much less a TDM RF telephony signal in place of a CW RF signal.

In the Response to Arguments section of the Office Action at page 22, it is asserted that a CW RF signal should be interpreted as "data received in normal operation." Applicant respectfully requests that the Examiner look to the claim language and give patentable weight thereto when interpreting the claims.

Further, on pages 22-23 of the Office Action, the Examiner states that he is unsure of the nature of the recited CW RF signal and requests that Applicant should explain the source, nature, and power characteristics of the CW RF signal. The passage continues by asserting that a rejection under 35 U.S.C. § 112 First Paragraph may be appropriate. It is believed that this issue is settled by the agreement reached in the telephone interview of June 28, 2005, whereby it was agreed that the CW RF signal does not read on the cited power signals.

Thus, the combination of *Knutson* and *Beveridge* does not teach or suggest all claimed limitations of claim 46. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. §103(a) rejection of claim 46. Because a combination of *Knutson* and *Beveridge* fails to teach or suggest all limitations of claim 46, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claim 46.

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Dependent claims 2-4, 10-16, and 48 each depend either directly or indirectly from respective independent claims 1 and 46 and, thus, inherit all of the limitations of those respective independent claims. Thus, the combination of *Knutson* and *Beveridge* does not teach or suggest all claim limitations of claims 2-4, 10-16, and 48. Further, the combination of *Knutson* and *Beveridge* is improper. It is respectfully submitted that dependent claims 2-4, 10-16, and 48 are allowable at least because of their dependence from claim 1 and 46 for the reasons discussed above.

B. Rejections over Beveridge in view of Knutson in further view of Denny

On pages 10-11 of the Office Action, claim 5 is rejected under 35 U.S.C. § 103(a) as being obvious over *Beveridge* in view of *Knutson* in further view of *Denny*. Dependent claim 5 depends directly from independent claim 1 and, thus, inherits all of the limitations of claim 1. Thus, the combination of *Knutson* and *Beveridge* does not teach or suggest all claim limitations of claim 5. *Denny* does not teach or suggest the features of claim 1 that are missing from *Knutson* and *Beveridge*, nor is it alleged that *Denny* teaches or suggests the feature. It is respectfully submitted that dependent claim 5 is allowable at least because of its dependence from claim 1 for the reasons discussed above. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claim 5.

C. Rejections over Beveridge in view of Knutson in further view of Birleson

On page 11 of the Office Action, claims 6-9 are rejected under 35 U.S.C. § 103(a) as being obvious over *Beveridge* in view of *Knutson* in further view of *Birleson*. Dependent claims 6-9 depend either directly or indirectly from independent claim 1 and, thus, inherit all of the limitations of claim 1. Thus, the combination of *Knutson* and *Beveridge* does not teach or suggest all claim limitations of claims 6-9. *Birleson* is not asserted by the Examiner to teach or suggest the features of claim 1 that are missing from *Knutson* and *Beveridge*. It is respectfully submitted that dependent claims 6-9 are allowable at least because of their dependence from claim 1 for the reasons discussed above. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claims 6-9.

D. Rejections over Beveridge in view of Knutson in further view of Bridger

On page 12 of the Office Action, claim 47 is rejected under 35 U.S.C. § 103(a) as being obvious over *Beveridge* in view of *Knutson* in further view of *Bridger*. Dependent claim 47 depends directly from independent claim 46 and, thus, inherits all of the limitations of claim 46. Thus, the combination of *Knutson* and *Beveridge* does not teach or suggest all claim limitations of claim 47. *Bridger* does not teach or suggest the features of claim 46 that are missing from *Knutson* and *Beveridge*, nor is it alleged that *Bridger* teaches the features. It is respectfully submitted that dependent claim 47 is allowable at least because of its dependence from claim 46 for the reasons discussed above. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claim 47.

E. Rejections over Gerszberg in view of Knutson

On pages 12-13 of the Office Action, claims 17-19, 21-23, 25, 26, 32-36, and 38-39 are rejected under 35 U.S.C. §103(a) as being obvious over *Gerszberg* in view of *Knutson*.

Claim 17 recites, in part, "wherein said acquisition time is less than one-fourth of said frame period, and wherein said frame period is equal to the time between the beginning of a first allocated time slot and the beginning of a second allocated time slot." The combination of Gerszberg and Knutson does not teach or suggest, at least, the above-quoted features of claim 17 because it does not teach the claimed acquisition time. It should be noted that Applicant has amended the claim to clarify that "acquisition time" is time to lock on to a desired frequency. While Col. 32, lines 18-54 of Gerszberg teaches an NIU that has a duty cycle of 50% while it waits for a component to address it, Gerszberg does not address the issue of acquisition time, and thus does not teach the claimed acquisition time. For instance, Gerszberg does not teach what acquisition time is needed in order to receive the data during the "on" periods of its cycle. Accordingly, one of skill in the art may assume that a much longer acquisition time is adequate for the Gerszberg application. Therefore, Gerszberg does not teach the above-recited feature of claim 17. The Office Action uses hindsight to create a system out of the words in claim 17. Knutson also does not teach or suggest the aboverecited feature, because it fails to address acquisition time at all. Thus, the combination of Gerszberg and Knutson does not teach or suggest all limitations of claim 17. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claim 17.

Claim 34 recites, in part, "means for pulsing off said tuner for substantially the remainder of time in each of said frames, said frames having a frame period, wherein said fast acquisition time tuner is operable to lock on to said TDM RF signal in a time equal to or less than a quarter of a time period between consecutive said allocated time slots." Applicant respectfully submits that the combination of *Gerszberg* and *Knutson* does not teach or suggest, at least, the above-quoted feature of claim 34. Neither *Gerszberg* nor *Knutson* addresses the issue of time to lock on to a desired frequency, and, therefore, does not teach to suggest the claimed acquisition time. Accordingly, the combination of *Gerszberg* and *Knutson* fails to teach or suggest "means for pulsing off said tuner for substantially the remainder of time in each of said frames, said frames having a frame period, wherein said fast acquisition time tuner is operable to lock on to said signal in a time equal to or less than a quarter of a time period between consecutive said allocated time slots."

In the Response to Arguments section of the Office Action at pages 25-26, the it is asserted that the limitation, "wherein said fast acquisition time tuner is operable to lock on to said TDM RF signal in a time equal to or less than a quarter of a time period between consecutive said allocated time slots," is equivalent to "the mobile receives signal in the allocated time slot of the frame." The Office Action also asserts that the *Knutson* receive period is the same as "a time equal to or less than a quarter of a time period between consecutive said allocated time slots." Such an interpretation misconstrues the claim language. First, the claimed acquisition time is not the same as receiving a signal, because acquisition time is time to lock on to the desired frequency. Second, the TDMA epoch of *Knutson* is not the same as "a time period between consecutive allocated time slots" because one particular handset may transmit or receive for two data slots and up to 24 audio slots in each epoch of *Knutson*. See *Knutson* at page 10, lines 9-16.

Further, the Office Action asserts that it is inherent for the *Knutson* handset to lock to the received signal in the allocated time slot. Such an assertion is unsupported. See, for example, the passage in the present application specification at page 9, lines 15-27, that describes acquisition time as separate from transmit and receive time. Such a passage teaches that chips take time to lock onto a frequency before a receive period begins. If the *Knutson* system includes its time to lock on in the allocated time slot, as the Examiner asserts, then the *Knutson* system would miss data that was transmitted during the lock on time. Thus, it is possible that the *Knutson* system pulses on well before any receive time in order to lock on to 17

the particular frequency. As explained before, acquisition times are not addressed in *Knutson* at all. Further, evidence and technical reasoning showing such inherency is requested under M.P.E.P §2112(IV). Therefore, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claim 34.

Dependent claims 18, 19, 21-23, 25-26, 32, 33, 35, 36, and 38-39 each depend either directly or indirectly from respective independent claims 17 and 34 and, thus, inherit all of the limitations of those respective independent claims. Thus, the combination of *Knutson* and *Gerszberg* does not teach or suggest all claim limitations of claims 18, 19, 21-23, 25-26, 32, 33, 35, 36, and 38-39. It is respectfully submitted that dependent claims 18, 19, 21-23, 25-26, 32, 33, 35, 36, and 38-39 are allowable at least because of their dependence from claims 17 and 34 for the reasons discussed above.

F. Rejections over Gerszberg in view of Knutson in further view of Bridger

On pages 16-17 of the Office Action, claims 20 and 37 are rejected under 35 U.S.C. § 103(a) as being obvious over *Gerszberg* in view of *Knutson* in further view of *Bridger*. Dependent claims 20 and 37 depend from respective independent claims 17 and 34 and, thus, inherit all of the limitations of their respective independent claims. Thus, the combination of *Knutson* and *Gerszberg* does not teach or suggest all claim limitations of claims 20 and 37. *Bridger* does not teach or suggest the feature of claims 17 and 34 that is missing from *Knutson* and *Gerszberg*, nor is it alleged that *Bridger* teaches or suggests the feature. It is respectfully submitted that dependent claims 20 and 37 are allowable at least because of their dependence from claims 17 and 34 for the reasons discussed above. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claims 20 and 37.

G. Rejections over Gerszberg in view of Knutson in further view of Denny

On page 17 of the Office Action, claims 27 and 41 are rejected under 35 U.S.C. § 103(a) as being obvious over *Gerszberg* in view of *Knutson* in further view of *Denny*. Dependent claims 27 and 41 depend from respective independent claims 17 and 34 and, thus, inherit all of the limitations of their respective independent claims. Thus, the combination of *Knutson* and *Gerszberg* does not teach or suggest all claim limitations of claims 27 and 41. *Denny* does not teach or suggest the feature of claims 17 and 34 that is missing from *Knutson* and *Gerszberg*, nor is it alleged that *Denny* teaches or suggests the feature. It is respectfully 18

submitted that dependent claims 27 and 41 are allowable at least because of their dependence from claims 17 and 34 for the reasons discussed above. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claims 27 and 41.

H. Rejections over Gerszberg in view of Knutson in further view of Birleson

On page 18 of the Office Action, claims 28-31 and 42-45 are rejected under 35 U.S.C. § 103(a) as being obvious over *Gerszberg* in view of *Knutson* in further view of *Birleson*. Dependent claims 28-31 and 42-45 depend from respective independent claims 17 and 34, and, thus, inherit all of the limitations of their respective independent claims. Thus, the combination of *Knutson* and *Gerszberg* does not teach or suggest all claim limitations of claims 28-31 and 42-45. The Office Action does not rely on *Birleson* to teach or suggest the features of claims 17 and 34 that is missing from *Knutson* and *Gerszberg*. It is respectfully submitted that dependent claims 28-31 and 42-45 are allowable at least because of their dependence from claims 17 and 34 for the reasons discussed above. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 103(a) rejection of claims 28-31 and 42-45.

VI. Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

It is believed that no fees are due with this response. However, if any additional fees are due, please charge Deposit Account No. 06-2380, under Order No. 49581/P020US/09905259 from which the undersigned is authorized to draw.

Dated: June 29, 2005

Respectfully submitted,

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